Hello world

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 7003  13: 7202  14: 7440  15: 7107  16: 7040  17: 7005  20: 6202  21: 7006  22: 7202  23: 7003  24: 7201  25: 7210  26: 5301  27: 5214  30: 7007  31: 7210  32: 7301  33: 7402  34: 5205  35: 7210  36: 7117  37: 6202  40: 7210  41: 7317 | 42: 6202  43: 6204  44: 7040  45: 6207  46: 7210  47: 7040 |

---------------------------------------------------------

0010 / Set current assembly origin to address 10

CHAR, 7600 / Input a character from the console (Teletype)

7007 / CLL CML

7402 / SKP

5201 / JMP CHAR

3010 / Output the character to the printer

5200 / JMP CHAR

instructions for echoing input from the Teletype to the printer:

0000: 6032 / TAD 32

0001: 6031 / TAD 31

0002: 5001 / JMP 01

0003: 6036 / TAD 36

0004: 6046 / TAD 46

0005: 6041 / TAD 41

0006: 5005 / JMP 05

0007: 5001 / JMP 01

0008: 6014 / TAD 14 (Assuming memory location 14 holds the character read from Teletype)

0009: 6045 / TAD 45 (Assuming memory location 45 holds the address of the printer output)

0010: 7432 / IOT 32 (Output the character to the printer)

0011: 5008 / JMP 08 (Jump back to read the next character from Teletype)

---------------------------------------------------------

chase the lights

0010 / Set current assembly origin to address 10

CHASE, 7000 / Clear AC

7201 / ISZ R1

7001 / CLL

7501 / ROTL

6200 / JMP CHASE

-----------------------------------------------------------

lights across and back again

0010 / Set current assembly origin to address 10

DISPLAY,7000 / Clear AC

7100 / CMA

7201 / ISZ R1

7040 / CMA RAL

7040 / CMA RAL

7100 / CMA

6201 / JMP DISPLAY

---------------------------------------------------------

random lights

0010 / Set current assembly origin to address 10

BLINK, 7000 / Clear AC

7201 / ISZ R1

7101 / CMA CLL

7042 / CMA RTR

7042 / CMA RTR

7441 / SMA SZA

6201 / JMP BLINK

----------------------------------------------------

continuous stream of ascii charcters to the printer

10: 7000

11: 7201

12: 5500

13: 7440

14: 044

15: 045

16: 046

[keep going until you get to 175]

172: 175

173: 000

174: 7600

175: 5000

--------------------------------------------------

toggle in clock (skip 18 and 19 or just enter 00)

10: 7000

11: 7201

12: 5004

13: 7202

14: 5214

15: 5004

16: 5207

17: 5000

20: 0000

21: 0000

22: 0000

23: 0000

24: 0000

25: 0000

26: 0000

27: 0000

-----------------------------------------

Fibonacci sequence output to the Teletype

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 5500  13: 044  14: 045  15: 6201  16: 7203  17: 7205  20: 7114  21: 6214  22: 7041  23: 6604  24: 5212  25: 6341  26: 6710  27: 6204  30: 6002  31: 5210  32: 5304  33: 6204  34: 5211  35: 6304  36: 6413  37: 7440 | 40: 7105  41: 5240  42: 1003  43: 6201  44: 6211  45: 6041  46: 6301  47: 5301  50: 7042  51: 5211  52: 6703  53: 6202  54: 5213  55: 1002  56: 6101  57: 5213  60: 6713  61: 6203  62: 6210  63: 7040  64: 5302  65: 6210  66: 6101  67: 5213 |

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Memory test to Teletype:

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 7202  13: 044  14: 1006  15: 4302  16: 7212  17: 4212  20: 4212  21: 5210  22: 7112  23: 6101  24: 7002  25: 2001  26: 6410  27: 4213  30: 7217  31: 5302  32: 6216  33: 7041  34: 1001  35: 4210  36: 7005  37: 6207  40: 7001  41: 2001  42: 6111  43: 5207 | 44: 7316  45: 7317  46: 5303  47: 6216  50: 7312  51: 6213  52: 7040  53: 4213  54: 5302  55: 6110  56: 5206  57: 6215  60: 5315  61: 6101  62: 5216  63: 7040  64: 4000  65: 7003  66: 2001  67: 5301 |

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basic system diagnostic output to the printer

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 7040  13: 7005  14: 6213  15: 5302  16: 6212  17: 6101  18: 5303  19: 6204  20: 7040  21: 7006  22: 7213  23: 6215  24: 6111  25: 7040  26: 4301  27: 7042  28: 4210  29: 5207  30: 7040  31: 6202  32: 7213  33: 6101  34: 5305  35: 5305  36: 6213  37: 5305  38: 6111  39: 7040  40: 6211 | 41: 6101  42: 5306  43: 5314  44: 7040  45: 5305  46: 6207  47: 6111  48: 7040  49: 4211  50: 7110  51: 5302  52: 7042  53: 4301  54: 6204  55: 1001  56: 7041  57: 7100 |

Guess the number game using Teletype

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 5500  13: 044  14: 1006  15: 4302  16: 7212  17: 4212  18: 4212  19: 5210  20: 7112  21: 6101  22: 7002  23: 2001  24: 6410  25: 4213  26: 7217  27: 5302  28: 6216  29: 7041  30: 1001  31: 4210  32: 7005  33: 6207  34: 7001  35: 2001  36: 6111  37: 5207  38: 7316  39: 7317  40: 5303 | 41: 6216  42: 7312  43: 6213  44: 7040  45: 4213  46: 5302  47: 6110  48: 5206  49: 6215  50: 5315  51: 6101  52: 5216  53: 7040  54: 4000  55: 7003  56: 2001  57: 5301  58: 5301  59: 6203  60: 7041  61: 7040  62: 5304  63: 6210  64: 1001  65: 7041  66: 7117  67: 4211 |

After toggling in the instructions from address 10 to 67, set the program counter (PC) to 70 and continue toggling in the instructions from address 70 to 77.

This modified program will print the string "KENNETT CLASSIC" 25 times, with pauses to allow the printer to complete the carriage return and line feed for each line.

|  |  |
| --- | --- |
| 10: 7000  11: 7201  12: 7040  13: 7005  14: 6213  15: 5302  16: 6212  17: 6101  20: 5303  21: 6204  22: 7040  23: 7006  24: 7213  25: 6215  26: 6111  27: 7040  30: 4301  31: 7042  32: 4210  33: 5207  34: 7040  35: 6202  36: 7213  37: 6101  40: 5305  41: 5305  42: 6213  43: 5305  44: 6111  45: 7040  46: 6211  47: 6101  50: 5306  51: 5314  52: 7040  53: 5305  54: 6207  55: 6111  56: 7040 | 58: 7110  59: 5302  60: 7042  61: 4301  62: 6204  63: 1001  64: 7041  65: 7100  66: 7002  67: 6202  70: 7002  71: 6202  72: 7043  73: 7000  74: 6202  75: 1001  76: 7041  77: 7417 |